



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-1136; Project Identifier MCAI-2020-01301-R; Amendment 39-21468; AD 2021-06-02]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Airbus Helicopters Model AS332L, AS332L1, AS332C, and AS332C1 helicopters. This AD was prompted by the failure of a second stage planet gear installed in the main gearbox (MGB). This AD requires identifying the part number of each second stage planet gear assembly installed in the MGB, replacing an MGB having certain second stage planet gear assembly part numbers with a serviceable MGB, modifying the helicopter by installing a full flow magnetic plug (FFMP), repetitively inspecting the FFMP and the MGB bottom housing and conical housing for metal particles, analyzing any metal particles that are found, and applying corrective actions if necessary, as specified in European Union Aviation Safety Agency (EASA) ADs, which are incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For material incorporated by reference (IBR) in this AD, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110. It is also available in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-1136.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-1136; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Mahmood Shah, Aviation Safety Engineer, Fort Worth ACO Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817 222 5538; email mahmood.g.shah@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2020-0022R2, dated December 23, 2020 (EASA AD 2020-0022R2) (also referred to as the Mandatory Continuing Airworthiness Information, or the

MCAI), to correct an unsafe condition for all Airbus Helicopters Model AS332L, AS332L1, AS332C, and AS332C1 helicopters.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus Helicopters Model AS332L, AS332L1, AS332C, and AS332C1 helicopters. The NPRM published in the *Federal Register* on December 21, 2020 (85 FR 82977). The NPRM was prompted by the failure of a second stage planet gear installed in the MGB of an Airbus Helicopters Model EC225LP helicopter. Airbus Helicopters Model AS332L, AS332L1, AS332C, and AS332C1 helicopters have a similar design to the affected Model EC225LP helicopter, therefore, these models may be subject to the unsafe condition revealed on the Model EC225LP helicopter. The NPRM proposed to require identifying the part number of each second stage planet gear assembly installed in the MGB, replacing an MGB having certain second stage planet gear assembly part numbers with a serviceable MGB, modifying the helicopter by installing an FFMP, repetitively inspecting the FFMP and the MGB bottom housing and conical housing for metal particles, analyzing any metal particles that are found, and applying corrective actions if necessary as specified in an EASA AD.

The FAA is issuing this AD to address failure of a second stage planet gear installed in the MGB, which could result in failure of the MGB and subsequent loss of control of the helicopter. See the MCAI for additional background information.

Comments

The FAA gave the public the opportunity to participate in developing this final rule. The FAA received no comments on the NPRM or on the determination of the cost to the public.

New EASA AD

In the NPRM, the FAA referred to EASA AD 2020-0022R1, dated September 18, 2020 (EASA AD 2020-0022R1). Since the NPRM was issued, EASA issued EASA AD 2020-0022R2, which extends the compliance time for installation of the FFMP.

The FAA determined that no additional work is required for helicopters that have accomplished the actions as required by EASA AD 2020-0022R1. Therefore, the FAA has revised all applicable sections in this final rule to also specify EASA AD 2020-0022R2.

Conclusion

The FAA reviewed the relevant data and determined that air safety and the public interest require adopting this final rule with the changes described previously and minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

The FAA also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

Related Service Information Under 1 CFR Part 51

EASA ADs 2020-0022R1 and 2020-0022R2 describe procedures for identifying the part number of each second stage planet gear assembly installed in the MGB, replacing an MGB having certain second stage planet gear assembly part numbers with a serviceable MGB, modifying the helicopter by installing an FFMP, repetitively inspecting the FFMP and the MGB bottom housing and conical housing for metal particles, analyzing any metal particles that are found, and applicable corrective actions. The corrective actions include replacing an affected MGB with a serviceable MGB.

These documents are distinct since EASA AD 2020-0022R2 extends the compliance time for installation of the FFMP.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 11 helicopters of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
8.50 work-hours X \$85 per hour = \$722.50	\$17,625	\$18,347.50	\$201,822.50

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. The FAA has no way of determining the number of helicopters that might need these on-condition actions:

Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
40.50 work-hour X \$85 per hour = \$3,442.50	\$275,000 (overhauled part)	\$278,442.50

According to the manufacturer, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators. The FAA does not control warranty coverage for affected operators. As a result, the FAA has included all known costs in the cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2021-06-02 Airbus Helicopters: Amendment 39-21468; Docket No. FAA-2020-1136;
Project Identifier MCAI-2020-01301-R.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER
DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Airbus Helicopters Model AS332L, AS332L1, AS332C,
and AS332C1 helicopters, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 6320, Main Rotor Gear Box.

(e) Reason

This AD was prompted by the failure of a second stage planet gear installed in the
main gearbox (MGB). The FAA is issuing this AD to address failure of an MGB second
stage planet gear, which could result in failure of the MGB and subsequent loss of control
of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions
and compliance times specified in, and in accordance with, European Union Aviation
Safety Agency (EASA) AD 2020-0022R1, dated September 18, 2020 (EASA AD 2020-

0022R1); or EASA AD 2020-0022R2, dated December 23, 2020 (EASA AD 2020-0022R2).

(h) Exceptions to EASA ADs 2020-0022R1 and 2020-0022R2

(1) Where EASA ADs 2020-0022R1 and 2020-0022R2 refer to March 30, 2018 (the effective date of EASA AD 2018-0066, dated March 23, 2018) or February 21, 2020 (the effective date of EASA AD 2020-0022, dated February 7, 2020), this AD requires using the effective date of this AD.

(2) The “Remarks” sections of EASA ADs 2020-0022R1 and 2020-0022R2 do not apply to this AD.

(3) Where EASA ADs 2020-0022R1 and 2020-0022R2 refer to flight hours (FH), this AD requires using hours time-in-service.

(4) Where the service information referred to in paragraphs (5) and (6) of EASA ADs 2020-0022R1 and 2020-0022R2 specifies to perform a metallurgical analysis and contact the manufacturer if unsure about the characterization of the particles collected, this AD does not require contacting the manufacturer to determine the characterization of the particles collected.

(5) Although the service information referred to in paragraph (6) of EASA ADs 2020-0022R1 and 2020-0022R2 specifies that if any 16NCD13 particles are found send a 1-liter sample of oil to the manufacturer, this AD does not require that action.

(6) Although the service information referenced in EASA ADs 2020-0022R1 and 2020-0022R2 specifies to discard certain parts, this AD does not include that requirement.

(7) Although the service information referenced in EASA ADs 2020-0022R1 and 2020-0022R2 specifies returning certain parts to the manufacturer, this AD does not require that action.

(8) Although the service information referenced in EASA ADs 2020-0022R1 and 2020-0022R2 specifies to contact the manufacturer if certain specified criteria are exceeded, this AD does not include that requirement.

(9) Although the service information referenced in EASA ADs 2020-0022R1 and 2020-0022R2 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(10) Although the service information referenced in EASA ADs 2020-0022R1 and 2020-0022R2 specifies to watch a video for removing the grease from the full flow magnetic plug (FFMP), using a cleaning agent, and collecting particles, this AD does not include that requirement.

(11) Where EASA ADs 2020-0022R1 and 2020-0022R2 require actions after the last flight of the day or “ALF,” this AD requires those actions before the first flight of the day.

(i) Special Flight Permit

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the helicopter to a location where the helicopter can be modified (if the operator elects to do so), provided no passengers are onboard.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

For more information about this AD, contact Mahmood Shah, Aviation Safety Engineer, Fort Worth ACO Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817 222 5538; email mahmood.g.shah@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2020-0022R1, dated September 18, 2020.

(ii) European Union Aviation Safety Agency (EASA) AD 2020-0022R2, dated December 23, 2020.

(3) For EASA AD 2020-0022R1 and EASA AD 2020-0022R2, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>.

Note 1 to paragraph (l)(3): EASA AD 2020-0022R1 can be accessed in the zipped file at the bottom of the web page for EASA AD 2020-0022R2. When EASA posts a revised AD on their website, they watermark the previous AD as “Revised,” alter the file name by adding “_revised” to the end, and move it into a zipped file attached at the bottom of the AD web page.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110. This material may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-1136.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov, or go to <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on March 8, 2021.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2021-06239 Filed: 3/25/2021 8:45 am; Publication Date: 3/26/2021]